

At present, Professor Dean and his assistant, Dr. Wrenshall are working on esters of lower homologues of chaulmoogric acids which have a lower molecular weight, are more highly unsaturated and are believed to have a greater therapeutic value. Meanwhile, the clinical side of the work has been taken over by Dr. Hasseltine, of the United States Public Health Service. The United States Public Health Service has taken a conservative stand on the therapeutic results of the ethyl chaulmoograte treatment of leprosy in the Hawaiian Islands, as is indicated by a short article in Public Health Reports (1921). Some relapses of paroled patients have occurred, and they prefer to speak of the paroled patients as having the disease arrested rather than cured. The report states: "In properly selected cases, especially in the young and in those who are in the early stages of the disease, the clinical improvement is rapid and striking. The result is less favorable in older persons and in case of long duration. At this time, we cannot say that the ethyl esters of chaulmoogra oil are a cure for leprosy."

Until 1920, the use of chaulmoogra oil and its derivatives in the treatment of leprosy was wholly empirical. There existed no scientific knowledge of how chaulmoogra oil acted in leprosy, the nature of the active substance in the oil, and whether its therapeutic action was specific for leprosy or might include other diseases. In that year, Walker and Sweeney, working in the George Williams Hooper Foundation for Medical Research, San Francisco, published the results of an investigation of these problems. It was determined experimentally that chaulmoogra oil contains substances having a high bactericidal activity. This bactericidal activity was found to reside in the fatty acids of the chaulmoogric series, and to be a function of the carbon ring structure, which is peculiar to the chaulmoogric acid series. The bactericidal activity of these cyclic fatty acids was shown to be specific against the acid-fast group of bacteria, to which the bacilli of leprosy and tuberculosis belong and absent toward all other bacteria. Walker demonstrated that other unsaturated fatty acids, such as those of cod liver oil, did not possess the specific bactericidal activity of the chaulmoogric acids. From these experimentally determined facts, it was concluded that the therapeutic action of chaulmoogra oil and its derivatives in leprosy was due to its direct bactericidal action; that Rogers' claim for the therapeutic action of the sodium morrhuate was unsupported; and it was suggested that there were theoretical grounds for believing that chaulmoogra derivatives might be of therapeutic value in tuberculosis.

#### NATIONAL BOARD OF MEDICAL EXAMINERS

This board was organized in 1915 as the result of action by the American Medical Association. Its purpose is to establish in the United States a standard qualifying examination which can be safely accepted by all State Boards of Medical Licensure as an adequate qualification for the practice of the healing art. Although in operation only six years, this board is now accepted by the United States Army, Navy and Public Health Services as qualifying for admission to their medical departments. The boards of medical examiners of twenty States now also accept the reports of this board in lieu of their own examinations.

The importance of this board is being more and more realized and the magnitude of its work is increasing tremendously. The method of examination has been modified so that it may be taken in three parts at separate times. Persons who desire to take this examination and who are interested in its workings—and this should include every young physician in the United States—should address Dr. J. S. Rodman, Secretary, 1310 Medical Arts Building, Philadelphia, Pa.

## Lane Lectures

Summary of Lane Medical Lectures for 1921 delivered by Dr. L. Emmett Holt, Emeritus Professor of Pediatrics, College of Physicians and Surgeons, Columbia University, New York, at Stanford University Medical School. (Reported by H. K. Faber, M. D., Stanford University Medical School.)

The eighteenth course of Lane Medical Lectures was delivered by Dr. L. Emmett Holt, Emeritus Professor of Pediatrics, College of Physicians and Surgeons, Columbia University, New York, on the evenings of December 5, 6, 7, 8 and 9, 1921, at Lane Hall, Stanford University Medical School, San Francisco, California.

The first lecture reviewed the problems of nutrition, especially as they affect children, the main emphasis being placed on the period after the second year. While underfeeding in adults impairs efficiency it may not greatly impair health, but in children it prevents growth, both mental and physical, and impairs health as well. Resistance to disease is lessened and children become underweight, stunted and anemic.

The selective draft showed about 30 per cent of our young adults unfit physically for military service, and statistics of our schools show that about the same proportion of our school children are underweight or suffering from the effects of malnutrition. The responsibility for this lies with the home, the State and the medical profession. Parents are ignorant of the simplest principles of nutrition; discipline is largely wanting and poverty plays also a certain part, though less in importance. Our medical schools lay too much emphasis on disease and too little on health. The physician's office is too much regarded as a repair shop. The Federal, State and municipal governments have largely neglected the health of children. \$9,700,576 was appropriated for the Department of Animal Industry against \$271,000 for the Children's Bureau. The average appropriation in twenty-four cities with a population of 250,000 was \$1.05 per capita and in eighty cities with a population over 12,000, 71 cents per capita. Many good-sized towns spend less than 15 cents per capita, less than the average admission to a moving picture show.

Stature is affected more by food than by climate. Japanese children in this country are taller and heavier than those in Japan. Native American children of the present generation are taller and heavier than their parents. Nutrition has an important bearing on progress in schools. Ayers has shown a close correlation between the nutrition and the proficiency in their studies of school children in Detroit. Moreover, poor nutrition makes children enter school late and have frequent absences. We cannot fill the head when the stomach is empty, nor can we expect application or concentration of mind from an anemic, nervous child who is twenty or thirty pounds below normal weight. The estimated cost of educating retarded children in the United States is \$27,000,000 yearly. It might prove a matter of economy, if some part of this \$27,000,000 was devoted to health education and hot school lunches.

The state of nutrition has a very important bearing on resistance to disease. Trudeau's experiments with tuberculosis in guinea pigs shows this, and clinical experience with pneumonia, empyema, typhoid fever, dysentery and other infections point to the same conclusion. The number of specific remedies for disease is small, and for a long time to come it will be the duty of the physician to treat the patient rather than the disease itself. This means very largely the maintenance of nutrition. Growth and repair are closely related processes and influenced by much the same conditions. This is particularly true in childhood. If underfeeding is continued past the normal period of growth, later growth becomes impossible